



# DAVID J. NEWTON ASSOCIATES

INCORPORATED

Civil and Geological Engineering Services

Copy to WA 6906  
Bob Farrell 9.19.91  
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September 19, 1991



Marcia Bailey, EPS  
RCRA Compliance Section  
U.S. ENVIRONMENTAL PROTECTION AGENCY, Region 10  
1200 6th Avenue  
Seattle, Washington 98101

**SUBJECT:** Pacific Wood Treating Corporation; RBT Site Ground Water.

Dear Marcia:

This letter is to advise you of progress that Pacific Wood Treating Corporation (PWTC) has made since the Seattle meeting with EPA in regard to RBT site ground water monitoring.

At this meeting, EPA consultant Bob Farrell expressed concern that waters in a sand phase between Troutdale Formation and younger clayey silt alluvial material may not be hydraulically connected to provide suitable monitoring through a shallow well system. PWTC agreed to further investigate ground water in the sand phase and report back to EPA on this matter.

Further investigation has been done. Based on this work, PWTC has identified conditions that may help explain water level responses in existing ground water sampling wells. The RBT landfill is equipped with an underdrain beneath the bentonite bottom liner of the landfill that is intended to prevent uplift on the liner during seasonal ground water perching in the sand phase. Reviews of photographs taken during construction of the landfill and review of closure documents indicate that the underdrain was installed in the sand phase. The underdrain consists of 4-inch diameter perforated PVC pipe in 2 foot deep by 2 foot wide gravel-filled trenches. The underdrain pipes extend from the northeast and southeast corners of the landfill to a junction point near the west boundary of the landfill. From this point, ground water is drained to a sump through a buried, non-perforated, 4-inch diameter PVC pipe.

A monitoring program carried out by PWTC during the 1990-91 wet season has resulted in records of precipitation dates and amounts, and water level responses in the sampling wells. It is possible that well responses to precipitation events may be influenced by discharge of ground water in the sand phase through the underdrain. If this is the case, hydraulic connection between waters in sampling wells, waters in the underdrain and waters in the sand phase beneath the landfill liner would exist. Although we believe hydraulic connection exists, additional conclusive evidence of this condition is desired by EPA.

PWTC intends to carry out monitoring tests during the upcoming winter and spring wet

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season. Monitoring will include documentation of precipitation dates and amounts and well responses as a continuation of monitoring work performed by PWTC during previous wet seasons. In addition, underdrain responses will be monitored. Access to the underdrain discharge is available for flow monitoring and comparison of flow responses to precipitation events and well responses.

Hydraulic connection will be further investigated with tracers. It is planned to charge well B-1, near the southeast corner of the landfill, with potassium iodide and test discharge waters from the underdrain for the tracer. Underdrain discharge will be monitored with a continuous recorder to document the time of first arrival of tracer and allow computation of travel time from B-1, located in the upgradient direction. Tracer tests are planned for other wells following the well B-1 test.

PWTC intends to implement the following plan during the upcoming wet season:

1. Submit report of investigative work on hydraulic connection of ground water in the sand phase and a plan for monitoring and tracer testing during the upcoming winter and spring seasons. This report will be submitted to EPA on or before October 28, 1991.
2. Implement monitoring plan on or before November 1, 1991 by recording precipitation amounts and dates, measuring and recording well responses, and measuring and recording underdrain responses. Prior to tracer testing, underdrain discharge waters will be sampled and tested for baseline water quality.
3. Submit interim reports of findings to EPA during the monitoring process. Submittal dates are December 30, 1991 and March 30, 1992.
4. Submit report of monitoring work, conclusions and recommendations for monitoring the RBT site to EPA on or before May 30, 1992.

If you have any questions regarding this letter, please do not hesitate to call Bryant Adams at (206) 887-3562, or me at (503) 228-7718.

Very truly yours,

DAVID J. NEWTON ASSOCIATES, INC.

  
David J. Newton, P.E., C.E.G.

Project Manager

cc: Bryant Adams